LCR lab

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**For experiment 1**

1.486 V for the battery

Resistance of resistor 449.1 kOhm

Capacitance 1.032 microFarad

=0.4633 ESTIMATE

RC ciruit

From

**For RC circuit, part 1 of experiment 2 (measuring V and V\_r):**

We need

Resistance of resistor 449.1 kOhm (not the same as part 1)

Capacitance 22.49 nanoFarad

Frequency of input wave is 27 herz

Amplitude pp is 1V

Extra part:

Freq 1 khz

Amp 4 V pp

**For RL circuit, part 2 of experiment 2(measuring V and V\_r still):**

Resistor: 503Ohm

Same inductor : Inductor: 44.3 mH

Kirchoff second law:

Frequency of input wave is 1 kHz

Amplitude of input wave is 1 volt peak to peak

**For part 3 (LC circuit) of experiment 2**

Capacitance of capacitor: 22.43 nFarad

Inductor: 44.3 mH

Original:

So, time constant for LC circuit

Peak to peak

**Experiment 3:**

RC circuit:

22.56 nanofarad capacitor

Resistance of resistor 502.5 Ohm

1 khz frequency



